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(19) (CA) APPLICATION FOR CANADIAN PATENT (12)

(54) Litter System

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(71) Same as inventor

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Notice: This application is as filed and may therefore contain an incomplete specification.



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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<p>(21) International Application Number: PCT/GB92/00788 (22) International Filing Date: 29 April 1992 (29.04.92) (71)(72) Applicant and Inventor: KNIGHT, John, Douglas [GB/GB]; 91 Kings Road, Sutton Coldfield, West Midlands B73 5AD (GB). (74) Agent: SHAW, Laurence; 5th Floor, Metropolitan House, 1 Hagley Road, Edgbaston, Birmingham B16 8TG (GB). (81) Designated States: AT, AU, BB, BG, BR, CA, CH, CS, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, PL, RO, RU, SD, SE, US, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG).</p>		<p>Published <i>With international search report.</i></p>
<p>(54) Title: LITTER SYSTEM</p> <div data-bbox="435 1150 1084 1675"></div> <p>(57) Abstract</p> <p>Animal litter for pets is used in a plastics tray which is foldable along diagonal lines (13) to close the tray to a sealed condition. Used litter may be disposed of in a hygienic way.</p>		

LITTER SYSTEM

The invention relates to a tray to contain litter for use by animals, especially domestic pets such as cats. There is a need for a simple and clean way of disposing of used cat litter but despite the attempts of numerous workers, no proposal is satisfactory. Usually the job of disposing of used lavatorial animal litter is messy to the point that people will not bother. Instead they let the pet outdoors to relieve itself. Cats, when let out for lavatorial purposes, are exposed to many risks and this is not to be recommended.

It is one object of the invention to satisfy the long-felt need for a simple, clean and efficient way of disposing of used animal litter.

In one aspect the invention provides a tray to contain litter for use by an animal, the tray being adapted or arranged in use to retain its shape and being foldable to a closed condition, characterised in that the tray includes deformations arranged to permit the tray to be folded to bring opposite edges together to seal the tray.

In one preferred aspect the tray is formed e.g. vacuum formed of a plastics and has thin walls comprising a floor and upstanding sidewalls. The tray includes deformations arranged to permit the tray to be folded to bring opposite sides together, complementary

engaging means being provided whereby the abutted walls can be inter-engaged so sealing the tray and its contents. Because such a tray has thin walls it is not self supporting and the invention provides a box therefor, the box having a compartment corresponding closely in shape and size to those of the tray whereby the tray is snugly supported e.g. so that a cat cannot claw the tray away from the supporting wall. In another aspect the invention provides a tray having relatively rigid walls (so that the box can be dispensed with), the tray including flexible areas whereby it may be folded as desired.

Preferably the tray is shaped to be foldable along a substantially diagonal axis to bring facing sides of the liner into abutting relation. Most preferably, the complementary engaging means are provided on the adjacent sides of the tray so that the abutted sides can be secured together. Such engaging means may comprise interlockable pegs and sockets; adhesive tapes; edges which can be folded over e.g. rolled over. In this way, a tray containing used animal litter may be disposed of in a sealed container.

The tray may be substantially square or oblong as seen in plan.

In order that the invention may be well understood it will now be described by way of example with reference to the accompanying drawings, in which:

Figure 1 is a perspective view of an empty box,
Figure 2 is a perspective view of a tray therefor,
Figure 3 is a plan view of the tray,
Figure 4 is a side sectional view of the tray,
Figure 5 is a diagram showing removal of the filled tray
from the box, and

Figures 6 and 7 show diagrammatically stages of sealing the
tray into closed condition.

The litter box B of Figure 1 is a relatively rigid structure and comprises a base having upstanding sidewalls 2 defining a compartment 3 of square section. The walls present a narrow ledge 4 about all four sides. A raised wall 5 is present about three sides of the box to retain litter etc.

The box contains a tray T formed e.g. by vacuum forming of a plastics. The tray has thin walls and comprises a floor 10 and four upstanding sidewalls 11 which end in an outwardly facing narrow ledge 12, which in use overlies the ledge 4 of the box B. The tray and the compartment 3 complement each other closely in size and shape. As seen in Figures 2 and 3, depressions 13 are formed in the floor generally parallel to each diagonal axis. Each corner of the ledge 12 has a cut out 14. There are upstanding pegs 15 or complementary sockets 16 on the ledges of adjacent side walls of the tray T.

In use, the tray is partially filled with a natural or synthetic litter material L. (The level of litter is selected to be enough for the job but not too much that litter would escape when the tray is later folded.) Because of the snug fit of the tray T in the compartment 3, a cat cannot claw or scratch the tray wall away from the box. When the litter is in need of replacement the tray T is lifted out of the box B as shown in Figure 5, allowing opposite corners to be grasped so that the tray T can be folded along a diagonal axis to the condition shown in Figure 6. The folding is guided by the depressions 13 (which also prevent undue propagation of fold lines) and the cut outs 14. The pegs 15 are then pressed fitted into the respective sockets 16 so sealing the tray in an efficient and clean way. Because the tray tends to retain its shape as a result of the corners in the preformed shape, the tray is easier to fold than a plain bag or sheet, with little risk of escape of soiled litter. The sealed tray may then be discarded without the risk of mess or infection.

The system is simple to operate. The litter may be Fullers earth or a cheap substitute, e.g. peat, sawdust, sand, shredded paper.

The size of the box may be adjusted for single or multiple cat use. The tray may be oblong, hexagonal or other suitable shape as seen in plan. The system is useful to the domestic cat owner, the professional breeder, boarder or vet; the cat rescue

operators; etc. The system may be used for other animals e.g. puppies.

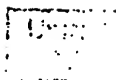
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CLAIMS

1. A tray (T) to contain litter for use by an animal, the tray being adapted or arranged in use to retain its shape and being foldable to a closed condition characterised in that the tray (T) includes deformations (13) arranged to permit the tray to be folded to bring opposite edges (12) together to seal the tray (T).
2. A tray according to Claim 1, wherein the tray (T) has a floor (10) and upstanding sidewalls (12), all vacuum formed of a thin plastics.
3. A tray according to any preceding Claim, shaped to be foldable (13) along a substantially diagonal axis to bring facing sides (12) of the tray into abutting relation.
4. A tray according to Claim 3, wherein complementary engaging means (15, 16) are provided on the opposite sides of the tray (T) so that the abutted sides can be secured together.
5. A tray according to Claim 4, wherein the complementary means comprises interengageable pegs (15) and sockets (16).
6. A tray according to Claim 4 or 5, wherein the pegs (15) and sockets (16) are present in ledges (12) present on sidewalls (11) of the tray.



ENCLOSURE SHEET

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7. A tray according to any preceding Claim, wherein the ledge (12) includes a cut out (14) at the corners which lie substantially along the fold line.
8. A tray according to any preceding Claim, in combination with a box (B) having a tray-receiving compartment (3) which corresponds in shape and size to the tray (T).
9. A tray according to Claim 8 as dependant on Claim 7 or 8, wherein the box (B) has a ledge (4) on which rests the ledge (12) of the tray (T) when the tray (T) is received in the tray-receiving compartment (3) of the box (B).

Figure 1

B →

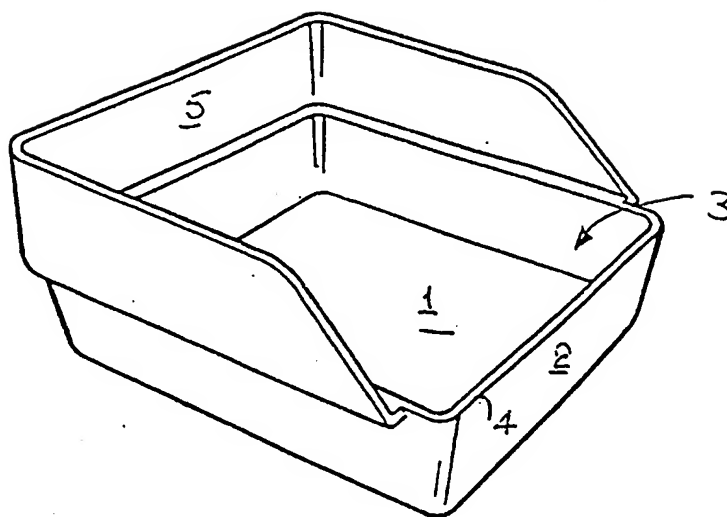


Figure 2

T →

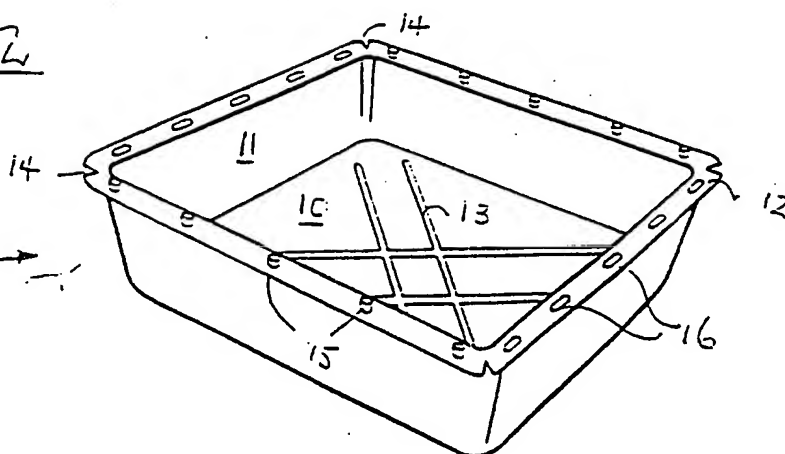
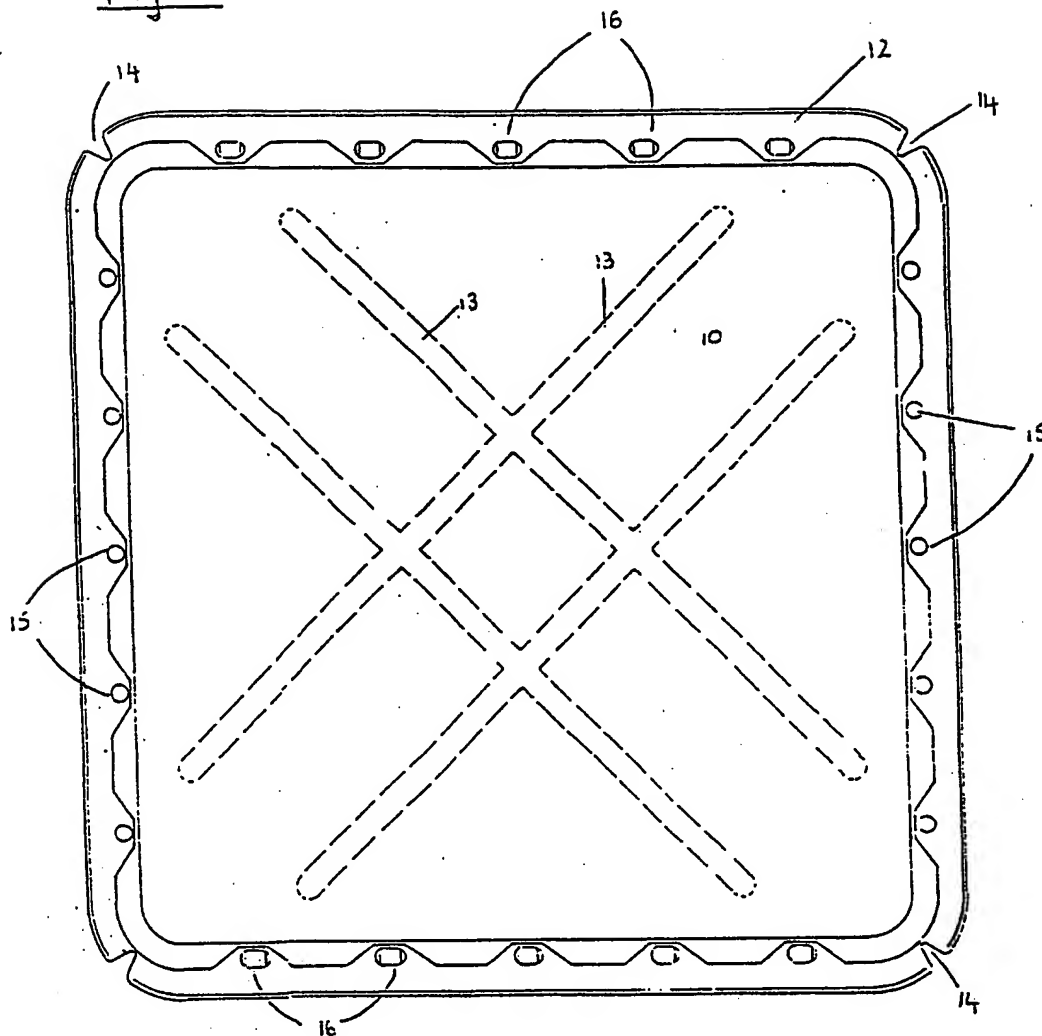


Fig. 3.

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Fig. 4

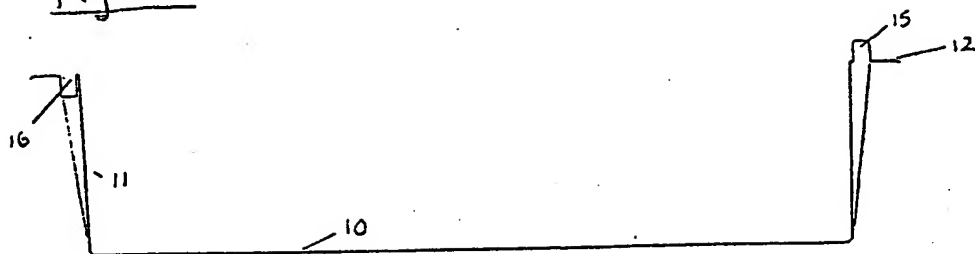
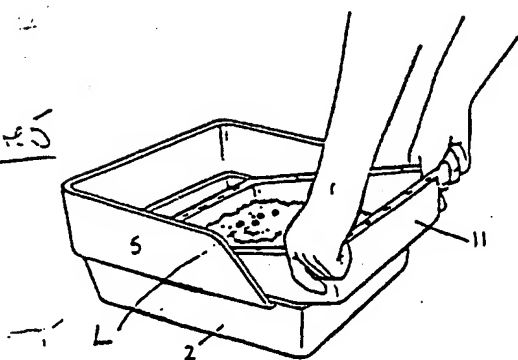


Figure 5



SUBSTITUTE SHEET

